From : Alain Painchaud, ing., da. client # 46343,
Application # 10/711 662
Bridge Converting movement into Electrical Energy.

Date: 5 Sept 2005

To: Raymond Addie, Patent Examiner, USPTO, Commissioner for Patents, PO Box 1450, Alexandra, Virginia, 22313-1450, fax 571-273-8300

Reference: In response to your final action dated 8 August 2005.

Remark

First, I am in disagreement with your report when you say that Runner and others anticipated my invention. However, I understand that my claims might have a lack of antecedents and could have a greater span than the disclosure, from the legal perspective, and that it could also lead the examiner to misunderstand it. I have brought the almost the same arguments to distinguish my invention from others for almost all the references cited by the examiner. It is also in my opinion that none of the invention cited by the examiner worked on public roads or could work on a public roads because all of their mechanism are perpendicular to the roadways and all of their mechanism create a lot of vibrations. View from this angle, I do not want my invention to look the same as any of the references that you cited. You can read my comments for each of the references below.

Therefore, I hereby propose to clarify my claims, if you think it is necessary, to make sure it is well understood by the examiner and that my claims do not include the invention of others.

Claims

Claim 1
A bridge converting linear movement into rotation, which comprises more than one vertically moving road segments coupled by the mean of pistons to a crankshaft that is parallel to the traffic direction and producing rotation in discrete steps when vehicles pass on the moving road segments of the said bridge.

Claim 2
A bridge converting linear movement into electricity, which comprises more than one vertically moving road segments coupled by the mean of pistons to a crankshaft that is parallel to the traffic direction and producing rotation in discrete steps that are converted in electrical energy by the mean of well known technologies.

A.P.

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Runner, 6 204 568 B1 :

So, when we look at Runner drawings, his claims and at his disclosures, he does not use a crankshaft BUT a geared shaft (22) combined with a spring (26). So, it is not the same thing at all and it works differently as a crankshaft. On top of that, his geared shaft (22) is perpendicular (not parallel like you said) to the traffic direction and can only remove vehicles energy with an impact when the vehicles pass on the moving road segment (24). Also, this system works with pumps, not with bike gears and flywheel like mine. Finally, this system can not generate a lot of energy without creating a lot of vibrations because it decelerates the vehicles with singular impacts, due to the way road segments are coupled with vehicles tires. Said more clearly, this system can not work on public roadways without creating excessive vibrations, unless the owner is willing to only remove a few % of the vehicles energy. According to me, the fact that Runner filed his request for patent with a geared shaft that is perpendicular to the traffic direction shows that he did not understand and that he never tested the effect of vibrations on vehicles. Also, a geared shaft perpendicular to traffic direction with a spring is not the same thing at all as a crankshaft mechanism parallel to the traffic direction.

At the next page, you will find another explanation of why my invention works and the one of Runner does not, practically speaking.

A.P.
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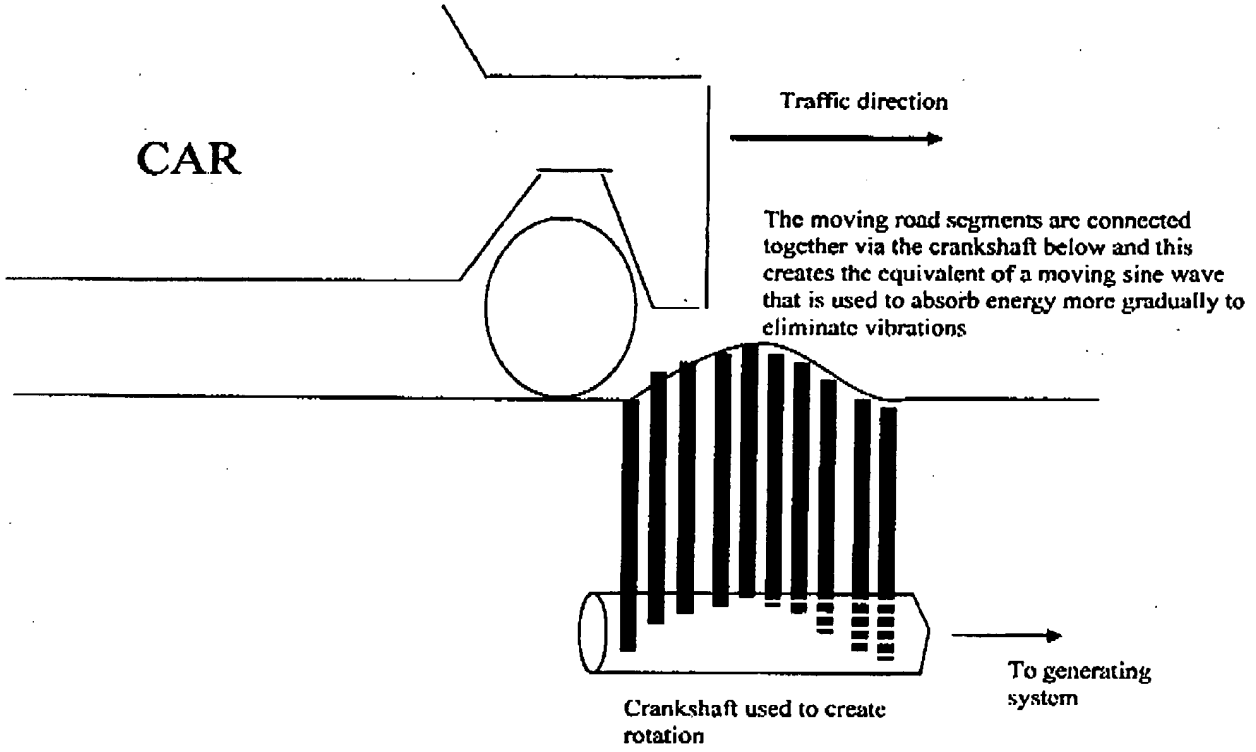
In the case of my invention, I use a crankshaft so that all the road segments are mechanically connected together by the mean of the crankshaft that is strictly parallel to the traffic direction. Because the crankshaft is parallel to the traffic direction and that the road segments are mechanically connected together, the energy can be removed from vehicles without creating impacts on the vehicles because this parallel crankshaft will be used to create a travelling sine wave at the surface of the road with the moving road segments and the weight of the vehicles. When road segments are connected with a crankshaft parallel to the traffic direction, it is possible to remove energy from vehicles as smoothly as with moving sands. This can be seen on the following picture:



SO, this makes all the difference of the world to use a crankshaft parallel to the traffic direction instead of a geared shaft perpendicular to the traffic direction. This also tells you a lot about the lack of understanding of others persons that have filed for patents with several mechanism perpendicular to the traffic direction (other references cited). This also explains why you have never seen any of their device anywhere while you will see mine in a very short period of time.

A.P.

Galich # 6,376,925 B1

First, when we look at Galich drawings, his claims and at his disclosures, he does not use a crankshaft BUT a Hydraulic System that is activated again by the weight of vehicles. This system also creates impacts on vehicles because of his system that is perpendicular to the traffic direction. Finally, this system can not generate a lot of energy without creating a lot of vibrations because it decelerates the vehicles with singular impacts, due to the way road segments are coupled with vehicles tires. Said more clearly, this system can not work on public roadways without creating excessive vibrations, unless the owner is willing to only remove a few % of the vehicles energy. According to me, the fact that Galich filed his request for patent with a system that is perpendicular to the traffic direction shows that he did not understand and that he never tested the effect of vibrations on vehicles.

In the case of my invention, I use a crankshaft so that all the road segments are mechanically connected together by the mean of the crankshaft that is strictly parallel to the traffic direction. Because the crankshaft is parallel to the traffic direction and that the road segments are mechanically connected together, the energy can be removed from vehicles without creating impacts on the vehicles because this parallel crankshaft will be used to create a travelling wave at the surface of the road with the moving road segments and the weight of the vehicles.

Le Van # 3,944,855

First, when we look at Le Van drawings, his claims and at his disclosures, he does not use a crankshaft BUT a screw that generates a rotation with the mass of the vehicles. So, he removes energy from vehicles by using the weight of the vehicles. Finally, this system can not generate a lot of energy without creating a lot of vibrations because it decelerates the vehicles with singular impacts, due to the way road segments are coupled with vehicles tires. Said more clearly, this system can not work on public roadways without creating excessive vibrations, unless the owner is willing to only remove a few % of the vehicles energy. According to me, the fact that Le Van filed his request for patent with a system that is perpendicular to the traffic direction shows that he did not understand and that he never tested the effect of vibrations on vehicles.

In the case of my invention, I use a crankshaft so that all the road segments are mechanically connected together by the mean of the crankshaft that is strictly parallel to the traffic direction. Because the crankshaft is parallel to the traffic direction and that the road segments are mechanically connected together, the energy can be removed from vehicles without creating impacts on the vehicles because this parallel crankshaft will be used to create a travelling wave at the surface of the road with the moving road segments and the weight of the vehicles.

AP.

Gott et al. # 6,858,952 B2

First, when we look at Gott et al. claims and at their disclosures, he does not use a crankshaft BUT a power conversion system that is activated again by the weight of vehicles. This system also creates impacts on vehicles because this system is perpendicular to the traffic direction, instead of being parallel. Finally, this system can not generate a lot of energy without creating a lot of vibrations because it decelerates the vehicles with singular impacts, due to the way road segments are coupled with vehicles tires. Said more clearly, this system can not work on public roadways without creating excessive vibrations, unless the owner is willing to only remove a few % of the vehicles energy. According to me, the fact that Gott et al. filed his request for patent with a system that is perpendicular to the traffic direction shows that he did not understand and that he never tested the effect of vibrations on vehicles.

In the case of my invention, I use a crankshaft so that all the road segments are mechanically connected together by the mean of the crankshaft that is strictly parallel to the traffic direction. Because the crankshaft is parallel to the traffic direction and that the road segments are mechanically connected together, the energy can be removed from vehicles without creating impacts on the vehicles because this parallel crankshaft will be used to create a travelling wave at the surface of the road with the moving road segments and the weight of the vehicles.

Woodbridge et al. # 5,696,413 B2

First, when we look at Woodbridge et al. their system talks about:

" Their invention relates to an electrical generator and especially to an electric generator which produces electric power responsive to movement of a float riding in an oscillating fluid. "
Therefore, I do not see how this relates to my invention that is more related to generation of electricity by converting linear movement of vehicles into rotation and then into electricity.

Hoping this answers all of your questions. In the event that you still have questions for Alain Painchaud, you may reach him at your earliest convenience.

Best Regards,

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